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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/606,732	06/26/2003	Jason Charles Pelly	282541US8X	5845
<div>22850      7590      07/09/2007</div> <div>OBLON, SPIVAK, MCCLELLAND, MAIER &amp; NEUSTADT, P.C.</div> <div>1940 DUKE STREET</div> <div>ALEXANDRIA, VA 22314</div>				
			<div>EXAMINER</div> <div>TABATABAI, ABOLFAZL</div>	
			<div>ART UNIT</div> <div>2624</div>	<div>PAPER NUMBER</div>
			<div>NOTIFICATION DATE</div> <div>07/09/2007</div>	<div>DELIVERY MODE</div> <div>ELECTRONIC</div>

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/606,732	PELLEY ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Abolfazl Tabatabai	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-36 and 38-43 is/are pending in the application.
- 4a) Of the above claim(s) 18-20, 24-27, 31, 35, 37, 38 and 43 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 7-9, 13-15, 21, 23, 28-30, 32-34, 36 and 39-42 is/are rejected.
- 7) ☒ Claim(s) 2-6, 10-12, 16, 17 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/26/03</u> | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

**Claim Rejections - 35 USC § 103**

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 7-9, 21, 23, 29, 30, 32-34, 36, 39, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al (U. S. 6,888,893 B2) in view of Ryan et al (U. S. 6,374,036 B1).

Regarding claim 1, Li discloses a data processing apparatus operable to form a reduced-bandwidth-version of an original material item (column 29, lines 5-11), the reduced-bandwidth-version including a code word from a predetermined set of code words (column 22, lines 54-58).

However, Li is silent about the specific details regarding the step of:

an impaired version of the material item from which a marked representation of the original material item can be formed, wherein the impaired version is formed by removing the reduced-bandwidth-version of the material item from a copy of the original material item.

In the same field endeavor, however, Ryan discloses method and apparatus for copy-once watermark for video recording comprising the step of:

an impaired version of the material item from which a marked representation of the original material item can be formed (column 1, lines 53-59), wherein the impaired

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version is formed by removing the reduced-bandwidth-version of the material item from a copy of the original material item (column 11, lines 34-59 and column 14, lines 24-37). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use an impaired version of the material item from a copy of the original material item as taught by Ryan in the system of Li because Ryan provides Li an system, which improved economics and security over existing art.

Regarding claim 7, Li discloses the data processing apparatus as claimed in claim 1, comprising a data communications apparatus operable to communicate the marked reduced-bandwidth-version and the impaired version of the material item separately (column 11, lines 57-63).

Regarding claim 8, Li discloses the data processing apparatus as claimed in claim 7, wherein the impaired version of the material item is transmitted via a data communications network, and the reduced-bandwidth-version is distributed via a data carrier(column 11, lines 57-63).

Regarding claim 9, Li discloses the data processing apparatus as claimed in claim 7, wherein the impaired version of the material item is distributed via a data carrier, and the reduced-bandwidth-version is transmitted via a data communications network(column 11, lines 57-63).

Regarding claim 21, Li discloses the web server including a data processing apparatus as claimed in claim 1, operable to form an impaired version of a material item formed by subtracting a reduced-bandwidth-version from the material item, the web server (column 11, line 46) being arranged to provide access to the impaired version via

the Internet, Intranet (column 13, line 64), Extranet (column 13, line 64) or Private IP network and to provide the reduced-bandwidth-version of the material item marked with a code word which identifies a version of the material item formed by combining the impaired material item with the marked-reduced-bandwidth version of the material item (column 29, lines 5-11).

Claim 23 is similarly analyzed as claims 1 and 21 above.

Claim 29 is similarly analyzed as claim 1 above.

Regarding claim 30, Li discloses the method of processing as claimed in claim 29, wherein the forming a reduced-bandwidth-version of an original material item, comprises forming the bandwidth reduction in at least one of temporal or spatial domains (column 21, lines 54-60), and combining the code word with the reduced-bandwidth-version of the original material item, and the forming the impaired version of the original material item comprises subtracting the reduced-bandwidth-version of the material item from the original material item (column 11, lines 36-40).

Regarding claim 32, Ryan discloses a data signal representing an impaired material item or a reduced-bandwidth-version of the material item to which a code word has been embedded, as produced by the data processing apparatus according to claim 1 (see abstract).

Regarding claim 33, Li discloses a computer readable medium having recorded thereon a data signal representing an impaired material item or a reduced-bandwidth-version of the material item to which a code word has been embedded, as produced by the data processing apparatus according to claim 1 (column 11, lines 41-51).

Claims 34, 36 and 39 are similarly analyzed as claim 33 above.

Claims 41 and 42 are similarly analyzed as claim 1 above.

3. Claims 13,14,15 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al (U. S. 6,888,893 B2) and Ryan et al (U. S. 6,374,036 B1) as applied to claim 1 above, and further in view of Shattil (U.S. 2004/0243258 A1).

Regarding claim 13, Li and Rayan are silent about the specific details regarding the data processing apparatus as claimed in claim 1, wherein the bandwidth reduction processor comprises a spatial sub-sampler operable to form the reduced-bandwidth-version of the material item.

In the same field endeavor, however, Shattil discloses carrier interferometry coding and multicarrier processing comprises a spatial sub-sampler operable to form the reduced-bandwidth-version of the material item (Fig. 10, element 1002).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a spatial sub-sampler as taught by Shattil in the system of Li because Shattil provides Li an improved multicarrier processing, such as Fourier transform and coding which sample values are collected and processed according to mathematical principal. Also this processing performs various types of spectrum analysis and synthesis with substantial reduction or elimination of complex multiplications.

Regarding claim 14, Li and Rayan are silent about the specific details regarding the data processing apparatus as claimed in claim 13, wherein the spatial sub-sampler comprises a low pass filter and a sample selector operable to select predetermined

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samples with respect to a spatial reference after low pass filtering.

In the same field endeavor, however, Shattil discloses carrier interferometry coding and multicarrier processing comprises the spatial sub-sampler comprises a low pass filter and a sample selector operable to select predetermined samples with respect to a spatial reference after low pass filtering [page 8, paragraph (0127)].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use a low pass filter and a sample selector as taught by Shattil in the system of Li because Shattil provides Li an improved multicarrier processing, such as Fourier transform and coding which sample values are collected and processed according to mathematical principal. Also this processing performs various types of spectrum analysis and synthesis with substantial reduction or elimination of complex multiplications.

Regarding claim 15, Li and Rayan are silent about the specific details regarding the data processing apparatus as claimed in claim 14, wherein the sample selector comprises a wavelet transform processor operable to form a wavelet transform of the material item and to select one of a plurality of sub-bands of the wavelet transform to form the reduced-bandwidth-version of the material after low pass filtering, the wavelet transform sub-bands providing the spatial reference.

In the same field endeavor, however, Shattil discloses carrier interferometry coding and multicarrier processing comprises the sample selector (Fig. 10, element 1004) comprises a wavelet transform processor operable to form a wavelet transform of the material item and to select one of a plurality of sub-bands of the wavelet transform to

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form the reduced-bandwidth-version of the material after low pass filtering, the wavelet transform sub-bands providing the spatial reference [page 12, paragraph (0177)].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use the sampler selector and a wavelet transform as taught by Shattil in the system of Li because Shattil provides Li an improved multicarrier processing, such as Fourier transform and coding which sample values are collected and processed according to mathematical principal. Also this processing performs various types of spectrum analysis and synthesis with substantial reduction or elimination of complex multiplications.

Regarding claim 40, Li and Rayan are silent about the specific details regarding the data carrier bearing an impaired material item and a plurality of a reduced-bandwidth-versions of the material item to which watermark code words have been added, as produced by the data processing apparatus according to claim 1, wherein the marked reduced-bandwidth-versions are encrypted.

In the same field endeavor, however, Shattil discloses carrier interferometry coding and multicarrier processing comprises the data carrier bearing an impaired material item and a plurality of a reduced-bandwidth-versions of the material item to which watermark code words have been added, as produced by the data processing apparatus according to claim 1, wherein the marked reduced-bandwidth-versions are encrypted (Fig. 17, element 1702).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use encryption as taught by Shattil in the system of Li

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because Shattil provides Li an improved multicarrier processing, such as Fourier transform and coding which sample values are collected and processed according to mathematical principal. Also this processing performs various types of spectrum analysis and synthesis with substantial reduction or elimination of complex multiplications.

### **Allowable Subject Matter**

4. Claims 2-6,10-12,16,17 and 28 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

### **Other Prior Art**

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Yu et al (U. S. 6,529,551 B1) disclose data efficient quantization table for digital video signal processor.

Dieterich et al (U. S. 4,575,770) disclose video disc data systems for interactive applications.

### **Contact Information**

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to ABOLFAZL TABATABAI whose telephone number is (571) 272-7458.

The Examiner can normally be reached on Monday through Friday from 9:30 a.m. to 7:30 p.m. If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Bhavesh Mehta, can be reached at (571) 272-7453. The fax

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phone number for organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abolfazl Tabatabai

Patent Examiner

Technology Division 2624

June 23, 2007

*A-Tabatabai*